## SEARS

# operator's manual

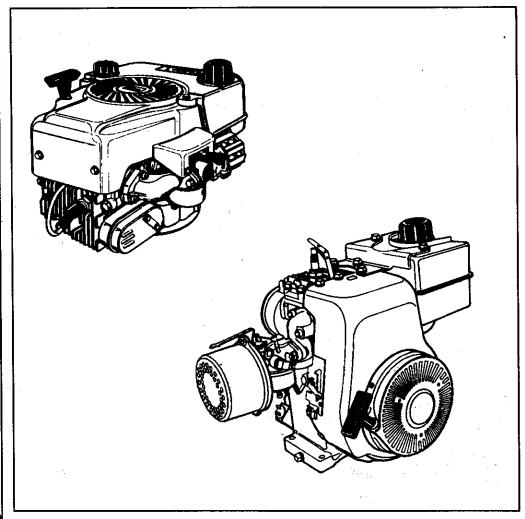
MODEL NO. 143.996706

6.75 RESERVE POWER 12.56 CUBIC INCH (207 cc) DISPLACEMENT

**SOLID STATE IGNITION** 

## **CAUTION:**

Read RULES for Safe OPERATION and INSTRUCTIONS Carefully



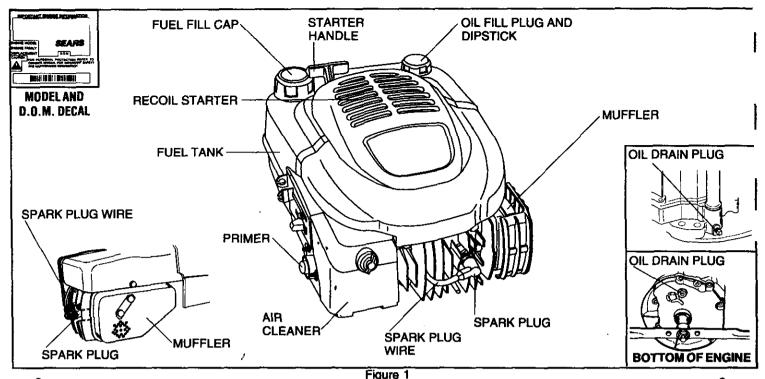
## ENGINE

- Operating
- Maintenance
- Repair Parts



California Proposition 65 WARNING: The engine exhaust from this product contains chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

Sold by SEARS, ROEBUCK AND CO., CHICAGO, IL 60684 U.S.A. and SEARS CANADA, INC., TORONTO, ONTARIO, CANADA





THIS SYMBOL POINTS OUT IMPORTANT SAFETY INSTRUCTIONS WHICH IF NOT FOLLOWED COULD ENDANGER THE PERSONAL SAFETY AND/OR PROPERTY OF YOURSELF AND OTHERS. READ AND FOLLOW ALL INSTRUCTIONS IN THIS MANUAL AND ANY PROVIDED WITH THE EQUIPMENT ON WHICH THIS ENGINE IS USED BEFORE ATTEMPTING TO OPERATING.



THESE SYMBOLS MAY APPEAR ON THE ENGINE:











CHOKE

ENGINES WHICH ARE CERTIFIED TO COMPLY WITH CALIFORNIA

certified to operate on regular unleaded gasoline. Include the following

emission control system(s): EM, TWC (if so equipped); Do not include

AND U.S. EPA EMISSION REGULATIONS FOR ULGE ENGINES: Are

any user adjustable features - therefore no other adjustments are needed.

**BEFORE STARTING** 

IMPORTANT KEEP THIS MANUAL HANDY AT ALL TIMES FOR FUTURE REFERENCE: READIT CAREFULLY AND FAMILIARIZE YOURSELF WITH THE OPERATING, MAINTENANCE AND SAFETY INSTRUCTIONS. THIS MANUAL ALSO CONTAINS A COMPLETE PARTS LISTING.

### OIL & FUEL RECOMMENDATIONS

TO OPERATE ENGINE, YOU WILL NEED THE FOLLOWING:

(1) A CLEAN, HIGH QUALITY, DETERGENT OIL.

Be sure original container is marked: A.P.I. service "SF" - "SJ":::

FOR SUMMER (ABOVE 32°F; 0°C) USE SAE 30 OIL. (SAE 10W30 is acceptable substitute.)

FOR WINTER (BELOW 32°F; 0°C) USE SAE 5W30 OIL.

(SAE 10W is an acceptable substitute.)

DO NOT USE 10W40 OIL.

OIL SUMP CAPACITY: 27 ounces (1-3/4 U.S. pints)

.80 liter

② A FRESH, CLEAN, UNLEADED REGULAR, UNLEADED PREMIUM, OR REFORMULATED AUTOMOTIVE GASOLINE ONLY. DO NOT USE LEADED GASOLINE.

NOTE: DO NOT USE GASOLINE CONTAINING METHANOL (WOOD ALCOHOL). Gasoline containing up to 10% ethanol or grain alcohol ("Gasohol"), or up to 15% MTBE (Methyl Tertiary Butyl Ether), may be used but requires special care when engine is unused for extended periods.

See "STORAGE" instructions of Page 4.

NOTE: Use clean oil and fuel and store in approved, clean covered containers. Use clean fill funnels.

Never use "stale" gasoline left over from last season or stored for long periods.

READ ALL INSTRUCTIONS PROVIDED WITH THE EQUIPMENT ON WHICH THIS ENGINE IS USED.

THIS ENGINE IS EQUIPPED WITH A FEDERALLY MAN DATED MECHANISM WHICH STOPS THE ENGINE. DO NOT INTERFERE WITH OR BYPASS THIS MECHANISM, PARTS OF THE MECHANISM MAY BE SUBJECT TO WEAR AND MUST BE CHECKED ONCE A YEAR BY AN AUTHORIZED SEARS ROEBUCK AND CO. (OR SEARS CANADA, INC.) SERVICE CENTER, IN THE EVENT THE MECHANISM FAILS FOR ANY REASON, YOU MUST NOT USE THE ENGINE UN TIL. CORRECTED BY AN AUTHORIZED SEARS ROEBUCK AND CO. (OR SEARS CANADA, INC.) SERVICE CENTER.

DISCONNECT SPARK PLUG WIRE FROM SPARK PLUG AND ATTACH IT TO RETAINING POST (see Figure 6 on Page 3).

**INSTALL ENGINE BRAKE CABLE AND STARTER ROPE:** BRAKE CABLE (see Figure 2): Attach engine brake cable to brake mechanism as shown. STARTER ROPE:

Depress mower control bar (see Figure 3) against mower handle and hold it in this position.

Pull at least 2 feet of starter rope out of starter and tie a slip knot at starter to prevent starter rope from rewinding back into starter.

#### BEFORE STARTING (Continued)

- C. Feed starter rope through starter handle (see Figure 5) and tie a left hand knot, leaving 1/2 inch to 1 inch of starter rope extending beyond left hand knot. DO NOT PULL LEFT HAND KNOT INTO STARTER HANDLE YET.
- D. With starter handle resting on rope guide (see Figure 4), check starter rope for slack. If there is any slack, pull more starter rope through starter handle and relocate left hand knot to eliminate slack.
- E. Untie slip knot at starter.
- F. Pull left hand knot into starter handle.

## 3 CHECK OIL LEVEL:

IMPORTANT: NEVER RUN ENGINE UNLESS OIL LEVEL IS BETWEEN "FULL" AND "ADD" MARKS ON DIPSTICK.

CHECK OIL LEVEL OFTEN DURING ENGINE BREAK-IN. NEVER RUN ENGINE UNLESS OIL FILL PLUG IS TIGHTENED SECURELY INTO OIL FILL HOLE.

- A. POSITION EQUIPMENT SO ENGINE IS LEVEL.
- B. Clean area around oil fill plug (see Figure 1).
- C. Remove oil fill plug and dipstick.
- Wipe dipstick clean, insert it into oil fill hole and tighten securely.
- E. Remove oil fill plug and check oil level. If level is not up to "FULL" mark on dipstick, add recommended oil, until it is. POUR SLOWLY.
  - Wipe dipstick clean each time oil level is checked. DO NOT FILL ABOVE "FULL" MARK ON DIPSTICK.
- F. Replace oil fill plug and tighten securely. See "MAINTENANCE" section for any future oil level and oil change instructions (see Page 3).
- FILL FUEL TANK with gasoline as specified in the preceding "OIL & FUEL RECOMMENDATIONS," item 2.

#### **NEVER MIX OIL WITH GASOLINE**

Never use "stale" gasoline left over from last season or stored for long periods.

NEVER FILL FUEL TANK INDOORS. NEVER FILL FUEL TANK WHEN ENGINE IS RUNNING OR HOT. DO NOT SMOKE WHEN



AND EQUIPMENT BEFORE STARTING ENGINE.

ANY LIQUEFIED PETROLEUM (LPG) OR NATURAL GAS FUEL
SYSTEM MUST BE LEAK PROOF AND MEET ALL APPLICABLE

FUEL EXPANSION. WIPE ANY FUEL SPILLAGE FROM ENGINE

SYSTEM MUST BE LEAKPROOF AND MEET ALL APPLICABLE CODES AND REGULATIONS.

## **⑤** CHECK THE FOLLOWING:

BE SURE EQUIPMENT IS IN NEUTRAL GEAR WITH CLUTCHES, BELTS, CHAINS AND SAFETY SWITCHES DISENGAGED. (FOLLOW EQUIPMENT MANUFACTURER'S INSTRUCTIONS.) THIS SHOULD PLACE ANY SAFETY SWITCHES IN SAFE STARTING POSITION.

Be sure spark plug wire is attached to spark plug (see Figure 1).

#### **STARTING**

NEVER RUN ENGINE INDOORS OR IN ENCLOSED, POORLY VENTILATED AREAS. ENGINE EXHAUST CONTAINS CARBON MONOXIDE, AN ODORLESS AND DEADLY GAS (CARBON MONOXIDE IS ALSO PRESENT IN ENGINE EXHAUST FROM LIQUID PETROLEUM (LPG) AND NATURAL GAS FUEL SYSTEMS).

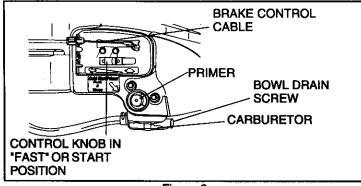
A

KEEP HANDS, FEET, HAIR AND LOOSE CLOTHING AWAY FROM ANY MOVING PARTS ON ENGINE AND EQUIPMENT.

 $\overline{\mathbf{A}}$ 

WARNING - TEMPERATURE OF MUFFLER AND NEARBY AREAS MAY EXCEED 150°F (65°C). AVOID THESE AREAS.

NOTE: See equipment manufacturer's instructions for control positions which correspond to engine control positions in Figure 2.



## 1 ENGINE WITH PRIMER

- Move control lever (figure 2) to "FAST" or "START" (see equipment manufacturer's instructions).
- 2) The carburetor on your engine has been completely adjusted at the factory. When starting a cold engine, push red primer bulb firmly with your thumb 3 times, allowing primer bulb to return completely to original position between pushes. Repeat the above for each starter operation as necessary. NOTE: DO NOT USE PRIMER TO RESTART A WARM ENGINE AFTER A SHORT SHUTDOWN.
- 3) Operate mower control to release engine brake.

4)

- a) RECOIL STARTERS: Grasp starter handle (figure 3) and pull rope out slowly until you feel drag. Let rope rewind slowly. Pull rope with rapid, full arm stroke. Return rope slowly to original position.
  - NOTE: If engine fails to start after three pulls, repeat steps 2-3 above
- b) ELECTRIC STARTERS: Crank engine.
  - NOTE: If engine does not start after five seconds of cranking, stop and repeat steps 2-3 above.
  - NOTE: If equipped with a snap-in control as shown, no

adjustment is required.

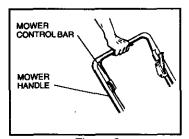
## **STOPPING**

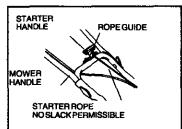
① See mower manufacturer's instructions.

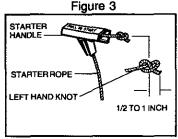
② AFTER ENGINE IS STOPPED:

A. DISCONNECT SPARK PLUG WIRE FROM SPARK PLUG AND ATTACH IT TO RETAINING POST (see Figure 6).

B. NEVER STORE ENGINE WITH FUEL IN TANK IN DOORS OR IN ENCLOSED, POORLY VENTILATED AREAS, WHERE FUEL FUMES MAY REACH AN OPEN FLAME, SPARK OR PILOT LIGHT AS ON A FURNACE, WATER HEATER, CLOTHES DRYER OR OTHER GAS APPLIANCE.







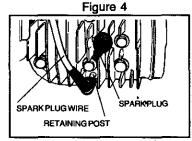


Figure 5

Figure 6

#### MAINTENANCE

WARNING - TEMPERATURE OF MUFFLER AND NEARBY AREAS MAY EXCEED 150°F (65°C). AVOID THESE AREAS.

#### 1 CHECK OIL LEVEL:

Check oil level every five (5) operating hours or each time engine is used. See "3 CHECK OIL LEVEL" in "BEFORE STARTING" on Page 2.

### 2 CHANGE OIL:

Change oil after first two (2) operating hours and every 25 operating hours thereafter, more often if operated in extremely dusty or dirty conditions. Change oil while engine is still warm from recent running.



## A. DISCONNECT SPARK PLUG WIRE FROM SPARK PLUG AND ATTACH IT TO RETAINING POST (see Figure 6).

- B Position equipment so engine oil drain plug is lowest point on engine.
- C. Remove oil drain plug and oil fill plug to drain oil (see Figure 1).
- D. Replace oil drain plug and tighten securely.
- E. Fill oil sump with recommended oil. See "OIL & FUEL RECOMMENDATIONS" and "CHECK OIL LEVEL" on Page 1.
- F. Replace oil fill plug and tighten securely.
- Connect spark plug wire to spark plug.
- H. Wipe up any spilled oil and/or gasoline.

NOTE: If it is difficult to reach the oil drain plug, drain fuel. Remove oil fill plug and tip mower on its side. Drain oil into a suitable container.

## 3 AIR CLEANER (see Figure 7):

## NEVER RUN ENGINE WITHOUT COMPLETE AIR CLEANER INSTALLED ON ENGINE.

#### A. TO SERVICE FILTER:

#### **PAPER FILTER:**

#### DO NOT ATTEMPT TO CLEAN OR OIL FILTER.

Replace filter once a year or every 100 operating hours, more often if used in extremely dusty or dirty conditions.

Replacement filters are available at any Sears Roebuck and Co. (or Sears Canada, Inc.) Service Center.

#### MAINTENANCE (Continued)

#### **FOAM FILTER:**

Clean and re-oil every three (3) months or every 25 operating hours. Clean and re-oil daily if used in extremely dusty conditions.

- A. Wash in water and detergent solution and squeeze (don't twist until all dirt is removed.)
- B. Rinse thoroughly in clear water.
- C. Wrap in a clean cloth and squeeze (don't twist) to distribute oil and remove excess oil.

#### B. TO REMOVE AND INSTALL FILTER:

- Remove cover from body by loosening wing nut.
   Swing cover down to remove from hinge.
- Inspect filter for discoloration or dirt accumulation. If either is present, service per preceding "TO SERVICE FILTER" instructions.
- 3. Clean inside of cover and body thoroughly.
- 4. Re-install filter in body.
- Install cover on body by aligning hinges between body and cover. Swing cover upward against body. Tighten wing nut securely.

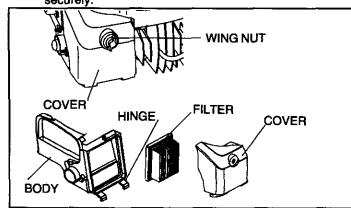


Figure 7

## 4 SPARK PLUG (see Figure 8):

This spark ignition system meets all requirements of the Canadian Interference-Causing Equipment Regulations. This engine complies with all current Australian and New Zealand limitations regarding electromagnetic interference. Check spark plug yearly or every 100 operating hours.

- Clean area around spark plug.
- B. Remove and inspect spark plug.
- C. Replace spark plug if electrodes are pitted, burned or porcelain is cracked. For replacement use Champion RJ-19LM or equivalent.

NOTE: A resistor spark plug must be used for replacement.

- Check electrodes gap with wire feeler gauge and set gap at .030 if necessary.
- E. Install spark plug, tighten securely.

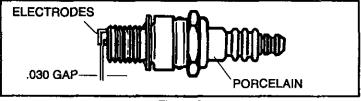
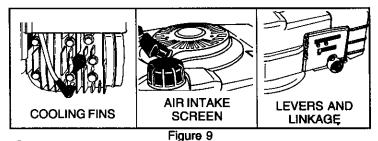


Figure 8

#### MAINTENANCE (Continued)

### (5) COOLING SYSTEM (see Figure 9):

IMPORTANT: Frequently remove any grass clippings, dirt and debris from cooling fins, air intake screen and levers and linkage (see Figure 1). This will help ensure adequate cooling and correct engine speed.



CHECK ENGINE AND EQUIPMENT OFTEN FOR LOOSE NUTS, BOLTS AND ATTACHMENTS, AND KEEP THESE ITEMS TIGHTENED.

### **ADJUSTMENTS**

DO NOT MAKE UNNECESSARY ADJUSTMENTS. FACTORY SETTINGS ARE SATISFACTORY FOR MOST APPLICATIONS AND CONDITIONS. IF ADJUSTMENTS ARE NEEDED, PROCEED AS FOLLOWS:

## (1) CARBURETOR

If you think your carburetor needs adjusting, see your nearest SEARS, ROEBUCK AND CO. (OR SEARS CANADA, INC.) SERVICE CENTER. Engine performance should not be affected at altitudes up to 7,000 feet. For operation at higher elevations, contact your nearest SEARS, ROEBUCK AND CO. (OR SEARS CANADA, INC.) SERVICE CENTER.

## 2 ENGINE SPEED

NEVER TAMPER WITH ENGINE GOVERNOR WHICH IS FACTORY SET FOR PROPER ENGINE SPEED. OVERSPEEDING ENGINE ABOVE FACTORY HIGH SPEED SETTING CAN BE DANGEROUS.

CHANGING OF ENGINE-GOVERNED SPEED WILL VOID **ENGINE WARRANTY.** 

#### STORAGE

NEVER STORE ENGINE WITH FUEL IN TANK INDOORS OR IN ENCLOSED, POORLY VENTILATED AREAS, WHERE FUEL FUMES MAY REACH AN OPEN FLAME, SPARK OR PILOT LIGHT AS ON A FURNACE, WATER HEATER, CLOTHES DRYER OR OTHER GAS APPLIANCE.

IF ENGINE IS TO BE UNUSED FOR 30 DAYS OR MORE, PREPARE AS FOLLOWS:

### ① DRAIN FUEL SYSTEM:

 Remove all gasoline from carburetor and fuel tank to prevent gum deposits from forming on these parts and causing possible malfunction of engine.

DRAIN FUEL INTO APPROVED CONTAINER OUTDOORS, AWAY FROM OPEN FLAME. BESURE ENGINE IS COOL. DO NOT SMOKE.

Run engine until fuel tank is empty and engine stops due to lack of fuel.

If "Gasohol" has been used, complete above NOTE: instructions and then put 1/2 pint of gasoline into fuel tank and repeat above instructions.

#### MAINTENANCE (Continued)

NOTE: Fuel stabilizer (such as STA-BIL) is an acceptable alternative in minimizing the formation of fuel gum deposits during storage. Add stabilizer to gasoline in fuel tank or storage container. Always follow mix ratio found on stabilizer container. Run engine at least 10 minutes after adding stabilizer to allow it to reach carburetor.

## 2 DRAIN CARBURETOR:

Drain carburetor by removing bowl drain screw (see Figure

10), which is located below carburetor.

DRAIN FUEL INTO APPROVED CONTAINER OUTDOORS, AWAY FROM OPEN FLAME. BE SURE ENGINE IS COOL. DO NOT SMOKE.

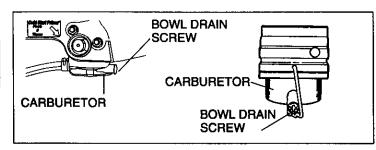


Figure 10

## ③ CHANGE OIL:

Change oil if it has not been changed in the last three (3) months. See "CHANGE OIL" instructions in "MAINTENANCE" section on Page 3.

### 4 OIL CYLINDER BORE:

- Remove spark plug and pour one (1) ounce (30 ml) of engine oil into spark plug hole.
- Cover spark plug hole with a rag.
- Crank engine over, slowly, several times.

AVOID SPRAY FROM SPARK PLUG HOLE WHEN **CRANKING ENGINE OVER SLOWLY.** 

D. Replace spark plug.

### (5) CLEAN ENGINE:

Remove any clippings, dirt, or chaff from exterior of engine.

## (6) BATTERY (if so equipped):

See equipment manufacturer's instructions for proper storage of battery.

#### GENERAL

Just as your automobile needs professional mechanical maintenance from time to time, so does your Craftsman engine. Replacement of the spark plug and air cleaner is made necessary by NORMAL use. Professional Air-Cooled Engine Service is as close as your nearest Sears Roebuck and Co. (or Sears Canada, Inc.) Service Center.

A yearly check-up or tune-up by Sears is a good idea to avoid breakdowns or delay ... do it at the end of the season, then you're ready for the next. We even prepare it for storage for you.

## **TROUBLESHOOTING**

## THE FOLLOWING MAY HELP AVOID A DELAY IN YOUR WORK OR SAVE THE EXPENSE OF A SERVICE CALL.

ENGINE FAILS TO START OR STARTS WITH DIFFICULTY				
CAUSE	REMEDY			
Controls not in start position.	Move ENGINE CONTROL or equipment control to "HI" or START postion. See "STARTING" instructions in this manual.			
Spark plug wire disconnected from spark plug.	Connect SPARK PLUG WIRE to SPARK PLUG.			
Spark plug fouled.	Remove SPARK PLUG and clean it. See "SPARK PLUG" instructions in "MAINTENANCE" section in this manual.			
Spark plug porcelain cracked.	Install new spark plug.			
Insufficient fuel.	Fill FUEL TANK per "BEFORE STARTING" instructions.			
Water or dirt in fuel.	Drain FUEL TANK and re-fill with clean, fresh gasoline. See "BEFORE STARTING" instructions in this manual.			
Improper carburetor adjustment	Adjust carburetor (if applicable). See "ADJUSTMENTS" section in this manual.			
ENGINE LACKS POWER				
CAUSE	REMEDY			
Dirty air cleaner. ,	Replace or clean air cleaner per "AIR CLEANER" instructions in "MAINTENANCE" section in this manual.			
Improper carburetor adjustment.	Adjust carburetor (if applicable). See "ADJUSTMENTS" section in this manual.			
Lack of lubricaiton.	Fill oil sump to proper level. See "BEFORE STARTING" instructions section in this manual.			
ENGINE MISSES UNDER LOAD				
CAUSE .	REMEDY			
Spark plug fouled.	Remove SPARK PLUG and clean it. See "SPARK PLUG" instructions in "MAINTENANCE" section in this manual.			
Spark plug porcelain cracked.	Install new SPARK PLUG.			
Improper spark plug gap.	Regap SPARK PLUG electrodes. See "SPARK PLUG" instructions in "MAINTENANCE" section in this manual.			
Improper carburetor adjustment	Adjust carburetor (if applicable). See "ADJUSTMENTS" section in this manual.			

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#### SEARS, ROEBUCK AND CO.

## Federal and California Emission Control Systems Limited Warranty Utility and Lawn and Garden Engines

## CALIFORNIA & US EPA EMISSION CONTROL WARRANTY STATEMENT

The U. S. Environmental Protection Agency ("EPA"), the California Air Resources Board ("CARB") and Sears, Roebuck and Co. are pleased to explain the Federal and California Emission Control Systems Warranty on your new utility or lawn and garden equipment engine. In California, new 1995 and later utility and lawn and garden equipment engines must be designed, built and equipped to meet the State's stringent anti-smog standards. In other states, new 1997 and later model year engines must be designed, built and equipped, at the time of sale, to meet the U.S. EPA regulations for small non-road engines. Sears, Roebuck and Co. will warrant the emission control system on your utility or lawn and garden equipment engine for the periods of time listed below, provided there has been no abuse, neglect, unapproved modification, or provided there has been no abuse, neglect, unapproved modification, or improper maintenance of your utility or lawn and garden equipment engine.

Your emission control system may include parts such as the carburetor, ignition system and exhaust system. Also included may be the compression release system and other emission-related assemblies.

Where a warrantable condition exists, Sears, Roebuck and Co. will repair your utility or lawn and garden equipment engine at no cost to you for diagnosis, parts and labor.

#### MANUFACTURER'S EMISSION CONTROL SYSTEM WARRANTY COVERAGE

Emission control systems on 1995 and later model year California utility and lawn and garden equipment engines are warranted for two years as hereinafter noted. In other states, 1997 and later model year engines are also warranted for two years. If, during such warranty period, any emission-related part on your engine is defective in materials or workmanship, the part will be repaired or replaced by Sears, Roebuck and Co.

#### **OWNER'S WARRANTY RESPONSIBILITIES**

As the utility or lawn and garden equipment engine owner, you are responsible for the performance of the required maintenance listed in your Owner's Manual, but Sears, Roebuck and Co. will not deny warranty solely due to the lack of receipts or for your failure to provide written evidence of the performance of all scheduled maintenance.

As the utility or lawn and garden equipment engine owner, you should, however, be aware that Sears, Roebuck and Co. may deny you warranty coverage if your utility or lawn and garden equipment or a part thereof has failed due to abuse, neglect, improper maintenance or unapproved modifications.

You are responsible for presenting your utility or lawn and garden equipment engine to a Sears, Roebuck and Co. Authorized Service Outlet as soon as a problem exists. The warranty repairs should be completed in a reasonable amount of time, not to exceed 30 days.

Warranty service can be arranged by contacting either a Sears, Roebuck and Co. Authorized Service Outlet, or by contacting Sears, Roebuck and Co. at 1-800-473-7247.

#### IMPORTANT NOTE

This warranty statement explains your rights and obligations under the Emission Control System Warranty ("ECS Warranty") which is provided to you by Sears, Roebuck and Co. Limited Warranties for Sears, Roebuck and Co. which is enclosed therewith on a separate sheet and also is provided to you by Sears, Roebuck and Co. The ECS Warranty applies only to the emission control system of your new engine. To the extent that there is any conflict in terms between the ECS Warranty and the Sears, Roebuck and Co. Warranty and the Sears, Roebuck and Co. Warranty may provide a longer warranty period. Both the ECS Warranty and the Sears, Roebuck and Co. Warranty may provide a longer warranty period. Both the ECS Warranty and the Sears, Roebuck and Co. Warranty may provide a longer warranty describe important rights and obligations with respect to your new engine. with respect to your new engine.

Warranty service can only be performed by a Sears, Roebuck and Co. Authorized Service Outlet. At the time of requesting warranty service, evidence must be presented of the date of sale to the original purchaser. The purchaser shall pay any charges for making service calls and/or for transporting the products to and from the place where the inspection and/or warranty work is performed. The purchaser shall be responsible for any damage or loss incurred in connection with the transportation of any engine or any part(s) thereof submitted for inspection and/or warranty work.

If you have any questions regarding your warranty rights and responsibilities, you should contact Sears, Roebuck and Co. at 1-800-473-7247.

#### **EMISSION CONTROL SYSTEM WARRANTY**

Emission Control System Warranty ("ECS Warranty") for 1995 and later model year California utility and lawn and garden equipment engines (for other states, 1997 and later model year engines):

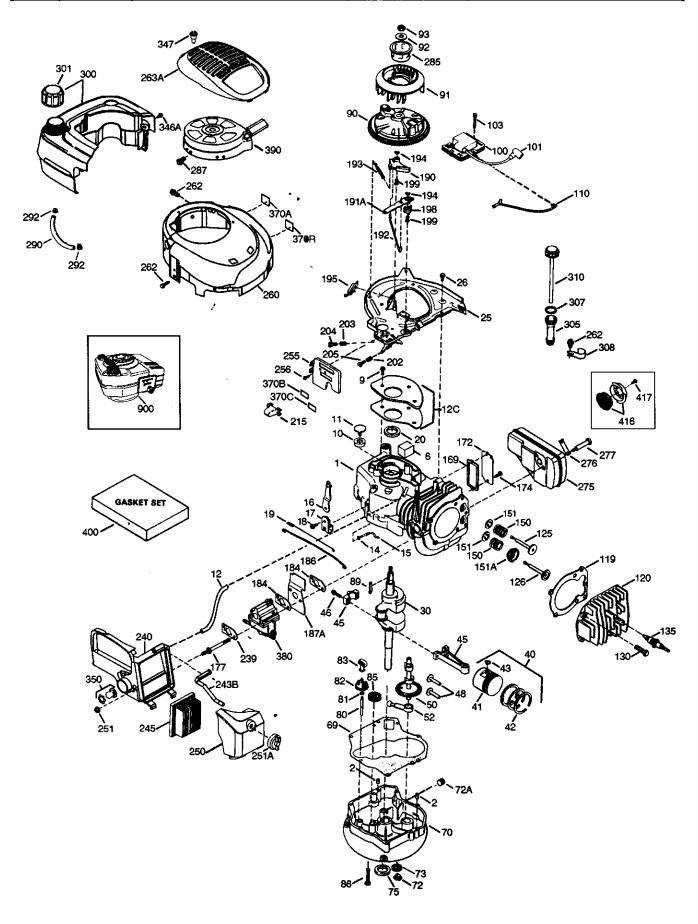
A. APPLICABILITY: This warranty shall apply to 1995 and later model year California utility and lawn and garden equipment engines (for other states, 1997 and later model year engines). The ECS Warranty Period shall begin on the date the new engine or equipment is delivered to its original, end-use purchaser, and shall continue for 24 consecutive months thereafter.

- B. GENERAL EMISSIONS WARRANTY COVERAGE: Sears, Roebuck and Co. warrants to the original, end-use purchaser of the new engine or equipment to each subsequent purchaser that each of its utility and lawn and garden equipment engines is
  - Designed, built and equipped so as to conform with all applicable regulations adopted by the Air Resources Board pursuant to its authority in Chapters 1 and 2, Part 5, Division 26 of the Health and Safety Code,
  - Free from defects in materials and workmanship which, at any time during the ECS Warranty Period, will cause a warranted emissions-related part to fail to be identical in all material respects to the part as described in the engine manufacturer's application for certification.
- C. The ECS Warranty only pertains to emissions-related parts on your engine, as follows:
  - Any warranted, emissions-related parts which are not scheduled for replacement as required maintenance in the Owner's Manual shall be warranted for the ECS Warranty Period. If any such part fails during the ECS Warranty Period, it shall be repaired or replaced by Sears, Roebuck and Co. according to Subsection 4 below. Any such part repaired or replaced under the ECS Warranty shall be warranted for any remainder of the ECS Warranty Period.
  - Any warranted, emissions-related part which is scheduled only for regular inspection as specified in the Owner's Manual shall be warranted for the ECS Warranty Period. A statement in such written instructions to the effect of "repair or replace as necessary", shall not reduce the ECS Warranty Period. Any such part repaired or replaced under the ECS Warranty shall be warranted for the remainder of the ECS Warranty
  - Any warranted, emissions-related part which is scheduled for replacement as required maintenance in the Owner's Manual, shall be warranted for the period of time prior to the first scheduled replacement point for that part. If the part fails prior to the first scheduled replacement, the part shall be repaired or replaced by Sears, Roebuck and Co. according to Subsection 4 below. Any such emissions-related part repaired or replaced under the ECS Warranty, shall be warranted for the remainder of the ECS Warranty Period prior to the first scheduled replacement point for such emissionsrelated part.
  - Repair or replacement of any warranted, emissions-related part under this ECS Warranty shall be performed at no charge to the owner at a Sears, Roebuck and Co. Authorized Service Outlet.
  - The owner shall not be charged for diagnostic labor which leads to the determination that a part covered by the ECS Warranty is in fact defective, provided that such diagnostic work is performed at a Sears, Roebuck and Co. Authorized Service Outlet.
  - Sears, Roebuck and Co. shall be liable for damages to other original engine components or approved modifications proximately caused by a failure under warranty of an emission-related part covered by the ECS Warranty.
  - Throughout the ECS Warranty Period, Sears, Roebuck and Co. shall maintain a supply of warranted emission-related parts sufficient to meet the expected demand for such emission-related parts.
  - Any Sears, Roebuck and Co. authorized and approved emission-related replacement part may be used in the performance of any ECS Warranty maintenance or repair and will be provided without charge to the owner. Such use shall not reduce Sears, Roebuck and Co. ECS Warranty obligations.
  - 9. Unapproved add-on or modified parts may not be used to modify or repair a Sears, Roebuck and Co. engine. Such use voids this ECS Warranty and shall be sufficient grounds for disallowing an ECS Warranty claim. Sears, Roebuck and Co. shall not be liable hereunder for failures of any warranted parts of a Sears, Roebuck and Co. engine caused by the use of such an unapproved add-on or modified part. the use of such an unapproved add-on or modified part.

#### EMISSION-RELATED PARTS INCLUDE THE FOLLOWING:

- Carburetor Assembly and its Internal Components
- a) Fuel filter
- b) Carburetor gaskets
- c) Intake pipe
- Air Cleaner Assembly
   a) Air filter element ignition System, including:
  - a) Spark plug
- b) Ignition module c) Flywheel assembly
- Catalytic Muffler (if so equipped)
  a) Muffler gasket (if so equipped)
- b) Exhaust manifold (if so equipped)
  Crankcase Breather Assembly and its Components
  - a) Breather connection tube

7.22.97 EPA/CARB



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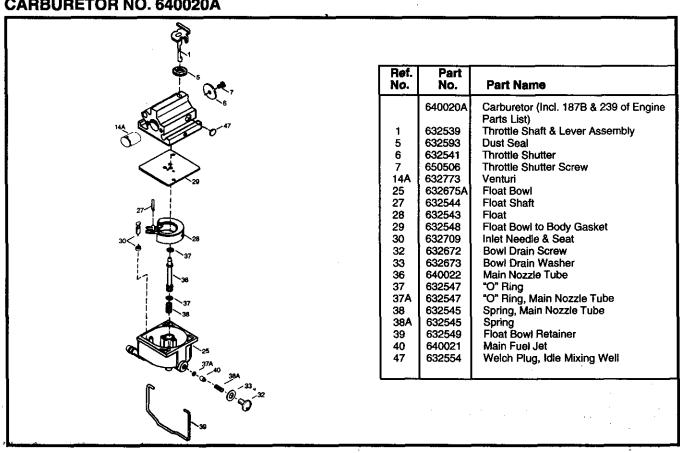
SHAFTSWAN 4-CTOLE ENGINE WODEL. 143.99070						
Ref. No.	Part No.	Part Name	Ref. No.	Part No.	Part Name	
	36177	Culindor (Incl. 0.10.10.00.9.10E)	160	*07004 *	Value Caring Day Coalest	
1		Cylinder (Incl. 2,10,12, 20 & 125)	169	*27234A	Valve Spring Box Gasket	
2	27652	Dowel Pin	172	32755	Valve Spring Box Cover	
6	36059	Breather Element	174	30200	Screw, 10-24 x 9/16"	
9	590568	Screw, 10-24 x 3/4"	177	650925A	Carburetor Mounting Stud	
10	36002	Breather Valve Body	184	36183	Carburetor Gasket	
11	36003A	Check Valve	186	36009	Governor Link	
12	32447	Breather Tube	187A	36195	Air Baffle	
12C	*36005A	Breather Cover & Gasket	190	36013	Brake Lever Ass'y.	
14	28277	Flat Washer	191A	36012	Brake Control Lever	
15	36006	Governor Rod (Machined)	192	36016	Brake Control Lever Link	
16	36008	Governor Lever	193	36015	Brake Spring	
17	31335	Governor Lever Clamp	194	36014	Retaining Ring	
18	651018	Screw, Torx T-15, 8-32 x 19/64"	195	610973	Terminal Ass'y.	
19	36103	Governor Spring	198	36017	Brake Control Lever Spring	
20	36010	Oil Seal	199	36018	Brake Lever Bushing	
25	36186	Blower Housing Baffle Ass'y. (Incl .	202	36482	Compression Spring	
		195)	203	31342	Compression Spring	
26	650802	Screw, 1/4-20 x 5/8"	204	651029	Screw, Torx T-10, 5-40 x 7/16"	
30	36185	Crankshaft	205	651030	Screw, Torx T-10, 6-32 x 17/32"	
40	40004	Piston,Pin,Ring Set (Std.)	215	36051	Control Knob	
40	40005	Piston, Pin, Ring Set (.010 OS)	239	*36048	Carburetor To Air Cleaner Gasket	
41	36070	Piston & Pin Ass'y.(Std.) (Incl. 43)	240	36190	Air Cleaner Body (Incl. 239 & 350)	
41	36071	Piston & Pin Ass'y.(.010 OS)	243B	651041	Air Cleaner Stud	
	3007.	(Incl.43)	245	36046	Air Cleaner Filter	
42	40006	Ring Set (Std.)	250	36191	Air Cleaner Cover	
42	40007	Ring Set (.010 OS)	251	650928	Lock Nut, 1/4-20	
43	20381	Piston Pin Retaining Ring	251A	650933	Wing Nut, 1/4-20	
45	36023A	Connecting Rod Ass'y. (Incl. 46)	255	36193	Control Plate	
46	32610A		256	650983		
48	36030	Connecting Rod Bolt			Screw, 8-32 x 21/64"	
50		Valve Lifter	260	36188	Blower Housing	
	36031A	Camshaft (MCR)	262	650737	Screw, 1/4-20 x 1/2"	
52 60	29914	Oil Pump Ass'y.	263A	36192	Starter Grill	
69	*36032A	Mounting Flange Gasket	275	36107A	Muffler	
70	37271	Mounting Flange (Incl. 72 thru 85)	276	36043	Locking Plate	
72	30572	Oil Drain Plug (Incl. 73)	277	650927	Screw, 5/16-18 x 2-11/32"	
72A	28483 •	Oil Drain Plug	285	34449A	Starter Cup	
73	28833	Drain Plug Gasket	287	650926	Screw, 8-32 x 21/64"	
75	36010	Oil Seal	290	29774	Fuel Line	
80	30574A	Governor Shaft	292	26460	Fuel Line Clamp	
81	30590A	Washer	300	36189	Fuel Tank (Incl. 301)	
82	30591	Governor Gear Ass'y. (Incl.81)	301	36246	Fuel Cap	
83	36057	Governor Spool	305	36063	Oil Fill Tube	
85	36034	Idler Gear	307	35499	"O" Ring	
86	650924	Screw, 1/4-20 x 1-9/16"	308	36040	Fill Tube Clip	
89	611154	Flywheel Key	310	36064	Dipstick	
90	611155	Flywheel	346A	28763	Screw, 10-32 x 35/64"	
91	611156	Flywheel Fan	347	650898A	Screw, 10-32 x 27/32"	
92	650815	Belleville Washer	350	36045A	Primer	
93	650816	Flywheel Nut				
100	34443B	Solid State Ignition	I			
101	610118	Spark Plug Cover	I			
103	651007	Screw, Torx T-15, 10-24 x 15/16"	l	•		
110	36054	Ground Wire	1			
119	*36061	Cylinder Head Gasket	I			
120	36187	Cylinder Head	1			
125	36471	Exhaust Valve (Std.) (Incl. 151)	1			
125	36472	Exhaust Valve (1/32" OS)			1	
126	29314C	Intake Valve (Std.) (Incl. 151)	I			
126	29314C 29315C	Intake Valve (Std.) (Ind. 151)	]			
130	6021A		I			
135	35395	Screw, 5/16-18 x 1-1/2"  Resistor Spark Plus (P.110) M	I			
150	31672	Resistor Spark Plug (RJ19LM)	l .			
151	31672	Valve Spring	I		*Indicatos Barta Included in	
151A		Lower Valve Spring Cap	l		*Indicates Parts Included in	
IDIA	40016A	Intake Valve Seal	ŀ		Gasket Set, Ref. No. 400.	
<u> </u>	<u></u>		L		L	

## **CRAFTSMAN 4-CYCLE ENGINE**

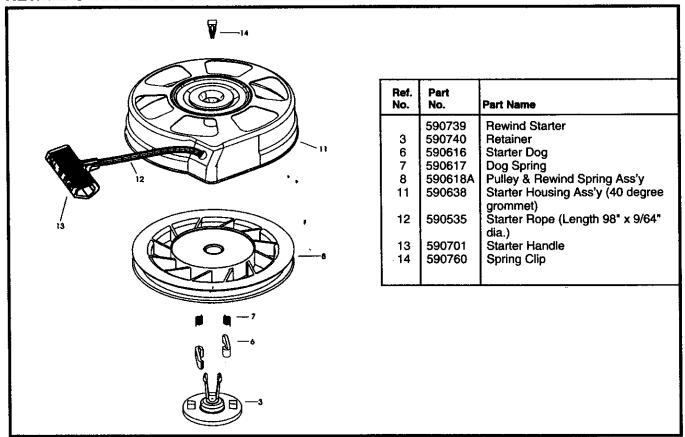
MODEL: 143.996706	MOD	EL:	143.	99	6706	ì
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Ref. No.	Part No.	Part Name	Ref. No.	Part No.	Part Name
370A 370B 370C 370R 380 390 400 416 417	36261 36155 37318 37317 640020A 590739 36062D 36085 650821	Lubrication Decal Control Decal Primer Decal Warning Decal Carburetor (Incl. 184,187A & 239) Rewind Starter (NOTE: This engine could have been built with 590702 starter). Gasket Set (Incl. Items Marked *) Spark Arrestor Kit (Incl. 417) (Optional) Screw, 10-32 x 1/2" (Optional) *	900 900	181-1183-11	Replacement Engine 750819C, order from 71-999 Replacement Short Block 750797C, order from 71-999 Operators Manual *Indicates Parts Included in Gasket Set, Ref. No. 400.  RPM High 2900 to 3200 RPM Low 2450 to 2750

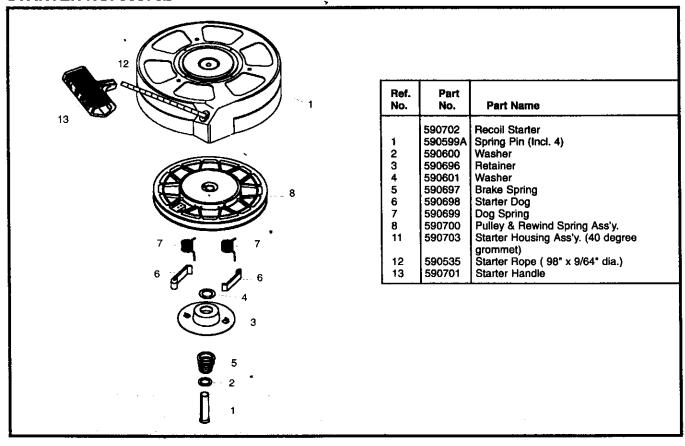
#### **CARBURETOR NO. 640020A**



#### **REWIND STARTER NO. 590739**



#### **STARTER NO. 590702**



## SEARS

# operator's manual

MODEL NO. 143,996706

6.75 RESERVE POWER
12.56 CUBIC INCH (207 cc)
DISPLACEMENT

**SOLID STATE IGNITION** 

## **CAUTION:**

Read RULES for Safe OPERATION and INSTRUCTIONS Carefully

### How to ORDER Repair Parts

The Model Number can be found on a decal on the blower housing (See Figure 1). Always mention the Model Number when requesting service or repair parts for your Craftsman Engine.

All parts listed herein may be ordered from any SEARS, ROEBUCK AND CO. or SEARS CANADA, INC. retail or catalog store. If the parts you need are not stocked locally, your order will be electronically transmitted to a Sears Repair Parts Distribution Center for expedited handling.

WHEN ORDERING REPAIR PARTS, ALWAYS GIVE THE FOLLOWING INFORMATION AS SHOWN IN THIS LIST.

- 1. The PART NUMBER
- 2. The PART DESCRIPTION
- 3. The MODEL NUMBER
- 4. The NAME OF ITEM ENGINE

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